

1 **SELF ADJUSTING ELECTRICALLY POWERED**
2 **PARKING BRAKE ACTUATOR MECHANISM WITH MANUAL RELEASE**
3

4 Abstract of the Disclosure

5 An electrically powered actuator mechanism for operating a vehicle parking brake
6 including a reversible electrical motor having output gearing driving a sector gear. A wrapped
7 spring clutch drivingly connects the sector gear to an intermediate operator cable wind up wheel.
8 The intermediate cable is connected to the brake cable to set the brakes when the operator cable
9 is wound up by energization of the motor in one direction, with a load sensor turning off the
10 motor when a predetermined tension load is reached. Locking motor gearing holds the brake in
11 the set condition. Reversal of the motor upwinds the cable to release the parking brake. A self
12 adjusting feature is provided by a pretensioned clock spring creating a torsional bias on the wind
13 up wheel tending to maintain a predetermined tension in the brake cable. A spring clutch is
14 released by engagement of a release arm to allow the clock spring to adjust the wind up wheel. A
15 cable operated manual release causes a release lever to engage the clutch spring release arm to
16 allow the cable to release although the clock spring monitoring a minimum tension after release
17 of the winding wheel.